

SOUTHERN RAILWAY

No.T/SG/36/I/Misc.

Divisional Office,  
S&T Branch,  
Tiruchchirappalli,  
Dt: 02.03.2022.

M/s.Cyrus Electronics Pvt. Ltd.,  
Cyrus House, B-44/69, Sector – Q, Aliganj,  
Lucknow.

Sub: Provision of Integrated Emergency Response Management System (VSS)

At stations ALU,VRI,PDY and NGT in Tiruchchirappalli Division.

Ref: 1.L.O.A. No.T/SG36/I/2/2021-2022/01342370040422 dt.23.08.2021.

2.Your letter No.CYR/PRJ/22-23/014 Dt.12.02.2022.

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With reference to the above, as per your request the currency of the above contract has been further extended upto 22.08.2022.

This has the approval of Competent Authority.

DSTE/TPJ.  
For Sr.DSTE/TPJ

**SOUTHERN RAILWAY**

Office of Sr. Divisional Signal & Telecom Engineer,  
DRM Office, Southern Railway, Tiruchchirappalli

T-SG-36-I-2-2021-2022/01342370040422

Date: 10.03.2022

The Director/QA/S&T/RITES  
Scope Minar, 12<sup>th</sup> Floor, Core II,  
Lakshmi Nagar,  
Delhi (India)- 110092

Sub:-Name of work: Provision of Integrated Emergency Response Management System (Video Surveillance System) at stations ALU, VRI, PDY and NGT in Tiruchchirappalli Division.

Ref:- L.O.A. No.T-SG-36-I-2-2021-2022/01342370040422 dt .23.08.2021.

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The contract for the above work was awarded to M/s.Cyrus Electronics Pvt.Ltd., Cyrus Houaw, B-44/69, Sector – Q, Aliganj, Lucknow-226 024 for which the contractor has to supply the following material.

S. No	Description of Material	Qty	Amount In Rs.	Manufacturer Name, Address & Place of inspection
NS 27	Supply of single mode single fibre 1 G SFP module compatible with Field and Aggregate switches to suit NS 24 & NS25.	419 Nos	8,38,000/-	M/s.GOIP Global Services Pvt. Ltd., H 68, Sec-63, Noida, Uttar Pradesh – 201 307

Detailed Specification: 1G Dual Fiber 20km(GOXS-1312-20D)

Sl.No.	Description
1	SFP Module should be comply with Multi Source Agreement (MSA), enabling compatibility with other vendors equipment.
2	Should support 10-20km and 23db link budget optical distance on Dual Fiber.
3	Should support 1310nm wavelength.
4	Should have LC type connector.
5	Should have 1Gigabit ethernet capacities on single mode fiber.
6	Should support DDMI feature.
7	OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid.
8	Should have CE and FCC and UL regulatory compliances.
9	Operating temperature of SFP should be minimum 0 to 65°C(23 to 149°F)

It is requested to inspect the above material as and when the material brought for inspection as specified in annexure. The currency of the contract is up to 22.08.2022.

Enc: Acceptance Test Plan sheets.

Digitally Signed by G

Koteswara Rao

Date: 10-03-2022 20:09:12

Divisional Signal & Telecomm. Engineer,  
Tiruchchirappalli Southern Railway.

Reason: Approved

1.ADSTE/TPJ & VM for information please.

2.M/s. M/s.Cyrus Electronics Pvt.Ltd., Cyrus Houaw, B-44/69, Sector – Q, Aliganj,

3.M/s. M/s.GOIP Global Services Pvt. Ltd., H 68, Sec-63, Noida, Uttar Pradesh – 201 307.

4.SSEs/T/TVR, VRI,VM for information and necessary Action please.

**SOUTHERN RAILWAY**

Office of Sr. Divisional Signal & Telecom Engineer,  
DRM Office, Southern Railway, Tiruchchirappalli

**ANNEXURE**

**PROFORMA FOR FURNISHING PARTICULARS FOR RITES INSPECTION OF MATERIALS TO BE SUPPLIED BY S & T CONTRACTORS.**

Name of the Work	: Provision of Integrated Emergency Response Management System (Video Surveillance System) at stations ALU, VRI, PDY and NGT in Tiruchchirappalli Division.
Contract Agreement No. & Date	: T/SG.36/I/2/2021-222/01342370040422 dt 23.08.2021
Ordering Authority	: Sr. Divisional Signal & Telecom Engineer, Southern Railway, Tiruchchirappalli.
Name of the Contractor	: M/s. Cyrus Electronics Pvt.Ltd., Cyrus Houaw, B-44/69, Sector – Q, Aliganj, Lucknow-226 024.
Inspection Charges	: Borne by the Contractor
Consignee	: SSE/T/VRI, SSE/T/VM, SSE/T/TVR
Inspecting Authority	: RITES/Delhi
Validity	: 22.08.2022
Bill Passing Authority	: Sr. Divisional Finance Manager/Southern Railway/TPJ.

S. No	Description of Material	Qty	Amount In Rs.	Manufacturer Name, Address & Place of inspection
NS 27	Supply of single mode single fibre 1 G SFP module compatible with Field and Aggregate switches to suit NS 24 & NS25.	419 Nos	8,38,000/-	M/s.GOIP Global Services Pvt. Ltd., H 68, Sec-63, Noida, Uttar Pradesh – 201 307.

Digitally Signed by G  
Koteswara Rao  
Date: 10-03-2022 20:08:26  
Reason: Approved

Divisional Signal & Telecommunication Engineer  
Tiruchchirappalli Southern Railway



## Specification For SFP

To,  
Sr. Divisional Signal 7 Telecom Engineer,  
Southern Railway, Trichchirappalli Division  
Trichchirappalli, Tamil Nadu.

**Ref Tender No: Bid Number:** TRICHCHIRAPPALLI DIVISION-S AND T /T-SG-36-I-2-2021-2022 /  
01342370040422

### 1G Dual Fiber 20km (GOXS-1312-20D)

S.No	Description	Compliance Yes/No
1	SFP module Should be comply with Multi Source agreement (MSA) , enabling compatibility with other vendors equipment.	Yes
2	Should support 10 -20km and 23db link budget optical distance on Dual Fiber.	Yes
3	Should support 1310nm wavelength.	
4	Should have LC type connector.	Yes
5	Should have 1Gigabit Ethernet capacities on single mode fiber.	Yes
6	Should support DDMI feature.	Yes
7	OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid.	Yes
8	Should have CE and FCC and UL regulatory compliances.	Yes
9	Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F)	Yes

### 10G Dual Fiber 20km ( GOXP-1396-20)

S.No	Description	Compliance Yes/No
1	SFP module Should be comply with Multi Source agreement (MSA) , enabling compatibility with other vendors equipment.	Yes
2	Should support 10 -20km and 14db link budget optical distance on Dual Fiber with	Yes
3	Should support 1310nm wavelength	Yes
4	Should have LC type connector.	Yes
5	Should have 10Gigabit Ethernet capacities on single mode fiber.	Yes
6	Should support DDMI/DOM feature. Option should be available for SFP+/XFP.	Yes
7	OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid.	Yes
8	Should have CE and FCC and UL regulatory compliances.	Yes
9	Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F)	Yes

Thanking You  
For, GOIP Global Services Pvt. Ltd.

Arvind Goel  
(Director)

For Ms GOIP Global Services Pvt. Ltd.

Director

GO IP GLOBAL SERVICES PVT. LTD.

Head Office: H-68, Sector-63, Noida (U.P.), India. Tel: +91-120-4533200 Fax: +91-120-4533236  
CIN: U74899DL1994TC061331 GST No. : 09AACBS2463B1Z01 MSME Registration No. (UAM No.) : DL08A0013866  
Email: accounts@goip.in, Web.: www.goip.in

**SOUTHERN RAILWAY**

Office of Sr. Divisional Signal & Telecom Engineer,  
DRM Office, Southern Railway, Tiruchchirappalli

T-SG-36-I-2-2021-2022/01342370040422

Date: 10.03.2022

The Director/QA/S&T/RITES  
Scope Minar, 12<sup>th</sup> Floor, Core II,  
Lakshmi Nagar,  
Delhi (India)- 110092

Sub:-Name of work: Provision of Integrated Emergency Response Management System (Video Surveillance System) at stations ALU, VRI, PDY and NGT in Tiruchchirappalli Division.

Ref:- L.O.A. No.T-SG-36-I-2-2021-2022/01342370040422 dt .23.08.2021.

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The contract for the above work was awarded to M/s.Cyrus Electronics Pvt.Ltd., Cyrus Houaw, B-44/69, Sector – Q, Aliganj, Lucknow-226 024 for which the contractor has to supply the following material.

S. No	Description of Material	Qty	Amount In Rs.	Manufacturer Name, Address & Place of inspection
NS 51	Supply of 3 Mtrs length SC SC/SC-LC/LC/FCSC/FC-FC (as per Site requirement) connectors OFC patch chord.	579 nos	5,21,100/-	M/s.GOIP Global Services Pvt. Ltd., H 68, Sec-63, Noida, Uttar Pradesh – 201 307.

**Detailed Specification: Specification of Patch Cord**

Sl.No.	Description	
i)	Operating Temperature : -10°C to +70°C	
ii)	Insertion Loss:	
	a	Insertion Loss of complete patch cord including adapter when tested from each direction in all conditions of operations: <= 0.3dB
	b	Insertion Loss of Adaptors: <=0.1dB
iii)	Return Loss for each connector of patch cord:	
	a	Type_I FC-PC: >=50dB
	b	Type_II SC-PC : >= 50dB
	c	Type_III SC-APC : >= 65dB
	d	Type_IV LC : >= 50 dB
	e	E2K/APC : >=60 dB
iv)	The length and type of connector of each patch cord 3M	
v)	Connector Body	
	a	FC-PC : Ni plated Brass body (Ni Plating shall be as per BIS Standards)
	b	SC-PC & SC-APC: Engineering thermoplastic (Glass filled PBT: Polybutylene Terephthalate)
	c	LC: PEI (Polyetherimide)/PPS(Polyphenylene Sulphide)

**SOUTHERN RAILWAY**

Office of Sr. Divisional Signal & Telecom Engineer,  
DRM Office, Southern Railway, Tiruchchirappalli

vi)	Color of connector body	
	a	FC-PC connector: Ni plated Brass
	b	SC-PC connector: Blue
	c	SC-PC connector: Green
	d	LC Connector: Blue
vii)	Radius of curvature	
	a	FC-PC : 10 to 25mm
	b	SC-PC : 10 to 25mm
	c	SC-APC : 5 to 12 mm
	d	LC: 10 to 25 mm
viii)	Minimum bending radius of the cable	
	a	Loaded : 50mm
	b	Unloaded : 30mm
ix)	Preferred type of connector is SC/APC for all connectors. (As per Corrigendum 232(8.20 B)	

It is requested to inspect the above material as and when the material brought for inspection as specified in annexure. The currency of the contract is up to 22.08.2022.

Enc: Acceptance Test Plan sheets.

Digitally Signed by G  
Koteswara Rao  
Date: 10-03-2022 20:09:54  
Divisional Signal & Telecommunication Engineer,  
Reason: Approved  
Tiruchchirappalli Southern Railway.

- 1.ADSTE/TPJ & VM for information please.
- 2.M/s. M/s.Cyrus Electronics Pvt.Ltd., Cyrus Houaw, B-44/69, Sector – Q, Aliganj,
- 3.M/s. M/s.GOIP Global Services Pvt. Ltd., H 68, Sec-63, Noida, Uttar Pradesh – 201 307.
- 4.SSEs/T/TVR, VRI,VM for information and necessary Action please.

**SOUTHERN RAILWAY**

Office of Sr. Divisional Signal & Telecom Engineer,  
DRM Office, Southern Railway, Tiruchchirappalli

**ANNEXURE**

**PROFORMA FOR FURNISHING PARTICULARS FOR RITES INSPECTION OF MATERIALS TO BE SUPPLIED BY S & T CONTRACTORS.**

Name of the Work	: Provision of Integrated Emergency Response Management System (Video Surveillance System) at stations ALU, VRI, PDY and NGT in Tiruchchirappalli Division.
Contract Agreement No. & Date	: T/SG.36/I/2/2021-222/01342370040422 dt 23.08.2021
Ordering Authority	: Sr. Divisional Signal & Telecom Engineer, Southern Railway, Tiruchchirappalli.
Name of the Contractor	: M/s. Cyrus Electronics Pvt.Ltd., Cyrus Houaw, B-44/69, Sector – Q, Aliganj, Lucknow-226 024.
Inspection Charges	: Borne by the Contractor
Consignee	: SSE/T/VRI, SSE/T/VM, SSE/T/TVR
Inspecting Authority	: RITES/Delhi
Validity	: 22.08.2022
Bill Passing Authority	: Sr.Divisional Finance Manager/Southern Railway/TPJ.

S. No	Description of Material	Qty	Amount In Rs.	Manufacturer Name, Address & Place of inspection
NS 51	Supply of 3 Mtrs length SC SC/SC-LC/LC/FCSC/FC-FC (as per Site requirement) connectors OFC patch chord.	579 nos	5,21,100/-	M/s.GOIP Global Services Pvt. Ltd., H 68, Sec-63, Noida, Uttar Pradesh – 201 307.

Digitally Signed by G

Koteswara Rao

Date: 10-03-2022 20:10:34

Divisional Signal & Telecomunication Engineer  
Tiruchchirappalli Southern Railway  
Reason Approved

### Specification For Patch Cord

To.  
 Sr. Divisional Signal 7 Telecom Engineer,  
 Southern Railway, Trichchirappalli Division  
 Trichchirappalli, Tamil Nadu.

Ref Tender No: Bid Number: TRICHCHIRAPPALLI DIVISION-S AND T /T-SG-36-I-2-2021-2022 /  
 01342370040422

S.No.	Description	Compliance (yes/no)
i)	<b>Operating Temperature:</b> -10°C to +70°C	YES
ii)	<b>Insertion Loss:</b>	
	a) Insertion Loss of complete patch cord including adapter when tested from each direction in all conditions of operations: ≤ 0.3 dB	YES
	b) Insertion Loss of Adaptors: ≤ 0.1 dB	YES
iii)	<b>Return Loss for each connector of patch cord:</b>	YES
	a) Type-I FC-PC : ≥ 50 dB	YES
	b) Type-II SC-PC : ≥ 50 dB	YES
	c) Type-III SC-APC : ≥ 65 dB	YES
	d) Type-IVLC:≥50dB	YES
	e) E2K/APC : ≥ 60 dB	YES
iv)	<b>The length and type of connector of each Patch Cord 3M</b>	YES
vi)	<b>Connector Body:</b>	
	a) FC-PC : Ni plated brass body (Ni plating shall be as per BIS Standards)	YES
	b) SC-PC & SC-APC : Engineering thermoplastic (Glass filled PBT: Polybutylene Terephthalate)	YES
	c) LC : PEI (Polyetherimide)/ PPS (Polyphenylene Sulphide)	YES
vii)	<b>Color of connector body:</b>	
	a) FC-PC connector: Ni plated Brass	YES
	b) SC-PC connector: Blue	YES
	c) SC-APC connector: Green	YES
	d) LC connector: Blue	YES
viii)	<b>Radius of curvature:</b>	
	a) FC-PC: 10to25mm	YES
	b) SC-PC: 10to25mm	YES
	c) SC-APC : 5 to 12 mm	YES
	d) LC: 10to25mm	YES
ix)	<b>Minimum bending radius of the cable:</b>	
	a) Loaded : 50 mm	YES
	b) Unloaded : 30 mm	YES
x)	<b>Preferred type of connector is SC/APC for all connectors. (As per Corrigendum 232(8.20 B) )</b>	YES

Thanking You  
 For, GOIP Global Services Pvt. Ltd.

  
**For M/s GOIP Global Services Pvt. L**  
 Arvind Goel  
 (Director)

GO IP GLOBAL SERVICES PVT. LTD.

Head Office: R-68, Sector-63, Noida (U.P), India. Tel: +91-120-4533200 Fax: +91-120-4533236  
 CIN: U74899DL1994TC061331 GST No. : 09AACBCS2463B120 Date of Registration: 01/08/2014  
 Scanned By Scanner Go IP Global Services Pvt. Ltd. (GOBA0013866)  
 Email: accounts@goip.in Web: www.goip.in

**SOUTHERN RLY****TRICHCHIRAPPALLI  
DIVISION-S AND T**

**Office of Senior  
Divisional Signal and  
Telecom Engineer, DRM  
Complex,  
Thiruchirapalli Junction,  
Thiruchirapalli, 620001  
Tamil Nadu, India**

**Letter No: TRICHCHIRAPPALLI DIVISION-S AND T /  
T-SG-36-I-2-2021-2022 / 01342370040422**

**Dated: 23/08/2021**

**M/s CYRUS ELECTRONICS PRIVATE LIMITED-  
LUCKNOW**

Cyrus House, B44/69  
Sector-Q, Aliganj  
Lucknow- 226024  
Uttar Pradesh, India

**Sub: Letter Of Acceptance**

- Ref:**
- 1. Tender No. T-SG-36-I-2-2021-2022 closing date 20-07-2021 14:00 for Provision of Integrated Emergency Response Management System (Video Surveillance System) at stations ALU, VRI, PDY and NGT in Tiruchirappalli Division.
  - 2. Your bid ID **12624737** dated **19/07/2021 14:22**
  - 3. Your Negotiation bid IDs [ **12692651** dated **03/08/2021 17:16** ]

The Competent Authority has accepted your offered rates in connection with the subject work. The total cost of the work at the accepted rates works out to Rs. 30992695.8 (Rupees Three Crore Nine Lakh Ninety-Two Thousand Six Hundred And Ninety-Five Rupees And Eighty Paise Only)

A sum of Rs.0 deposited as Earnest Money vide IREPS reference ID has been retained towards initial Security Money for due and faithful fulfillment of the contract, and the balance Security Money will be recovered from the progressive bills @ 6 % of the bill amount till it reaches 5 % of the contract value in terms of clause 16(1)-(3) of GCC JULY 2020.

You are requested to submit Performance Guarantee in the form as given in Clause 16(4) of GCC JULY 2020 equivalent to 3 % of the contract value amounting to Rs. 929780.87 (Rupees Nine Lakh Twenty-Nine Thousand Seven Hundred And Eighty Rupees And Eighty-Seven Paise Only) within 21 days from the date of issue of Letter of Acceptance, valid up to stipulated date of completion plus 60 days so that contract agreement can be executed. PG reduced to 3% as per RB Lr. No.2020/CE-I/CT/3E/GCC/Policy Dt: 20.11.2020.Clause 16(4) of Standard General Conditions of Contract 2020 equivalent to 3 % of the contract value and the Performance Guarantee shall be in favour of "Sr Divisional Finance Manager, Southern Railway, Tiruchirapalli."

The entire work shall be completed within 6 month from the date of issue of Letter of Acceptance.

**Rate Restriction:** : The rates are restricted for future reference due to higher rates for following items i.e NS1,2,3,8,10,11,12,15,17,18,20,27,32,33,37,38 & 39 and The Item NS 64 is Deleted from the scope of the work.

**CAMC:** The total cost of work includes that the CAMC cost of Rs.14,00,000/- (Fourteen Lakhs Rupees) for four stations(ALU,VRI,NGT and PDY) for five years. The CAMC contract agreement shall be executed separately after successful completion of warranty period. Security deposit shall be released to the contractor only after execution of contract agreement for CAMC.

SSE/T/VRI/TPJ, SSE/T/VM &SSE/T/TVR: : for information and necessary action. They are advised for ensuring Proper execution of the work as per terms and Conditions of the contract agreement, recording measurements and for accountal of the stores under their jurisdiction.

SSE/T/SRM/TPJ: : For information and proper accountal of stores as per terms & conditions of contract agreement.

ADSTE/East/TPJ, ADSTE/North/TPJ:: for information and they will be in-charge for the work and ensuring proper execution of the work under their jurisdiction.

CVO/MAS: : For kind information.

Sr. DFM/TPJ : : For kind information.

OS/Budget/S&T/TPJ: : for information and ensuring availability of funds during the execution of work.

All Other terms and conditions, as stipulated in the tender documents shall be applicable.

**GURRAM KOTESWARA RAO**  
**DSTE/TPJ**  
**Digitally Signed**  
[View Signature Details](#)

#### Awarded Quantities And Rates

Item Sno.	Item Desc	Item Code	Item Qty	Qty Unit	Unit Rate (Rs)	Escl. (%)	Advt.Value (Rs)	Bid Rate/ Unit Rate	Bid Amount (Rs)
<b>Schedule A-SOR ITEM (Item Directory - SOR 2011 directory final-Ver-2)</b>							<b>35516.00</b>		
1	SOR			<a href="#"><u>View Details</u></a>	At Par		35516.00	30.00 % Above	46170.80
<b>Schedule Totals</b>									<b>46170.80</b>
<b>Schedule B-NS ITEM (Item Directory - Not Applicable)</b>							<b>25194765.08</b>		
1	Supply of Full HD Bullet Type IP Colour camera as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS1	62	Numbers	11182.64	At Par	693323.68	23500.00 Rs/Unit	1457000.00
2	Supply of Full HD P/T/Z (Pan/Tilt/Zoom) IP Colour Camera as per RDSO spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS2	27	Numbers	35977.64	At Par	971396.28	51500.00 Rs/Unit	1390500.00
3	Supply of 4K UHD Bullet Type IP Camera as per RDSO spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS3	32	Numbers	24358.76	At Par	779480.32	47000.00 Rs/Unit	1504000.00
4	Installation, Testing & Commissioning of Full HD Bullet/ Dome IP Colour camera along with the mount. All the accessories and fixing materials including mount required for this installation are to be supplied by contractor within the same cost.	NS4	62	Numbers	177.79	At Par	11022.98	100.00 Rs/Unit	6200.00
5	Installation, Testing & Commissioning of Full HD/P/T/Z (Pan/Tilt/Zoom) IP Colour camera along with the mount. All the accessories and fixing materials including mount required for this installation are to be	NS5	27	Numbers	571.89	At Par	15441.03	400.00 Rs/Unit	10800.00

	supplied by contractor within the same cost.							
6	Installation, Testing & Commissioning of 4K UHD Bullet Type IP Camera along with the mount. All the accessories and fixing materials including mount required for this installation are to be supplied by contractor within the same cost.	NS6	32 Numbers	387.12 At Par	12387.84	200.00 Rs/Unit	6400.00	
7	Supply, Installation of Network Enable Joystick Controller for CCTV (Digital Keyborad) and as per RDSO spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS7	4 Numbers	13123.60 At Par	52494.40	12000.00 Rs/Unit	48000.00	
8	Supply of Server Hardware for Video Management & Recording and all other required accessories to make the system operational, as per RDSO spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS8	8 Numbers	266897.40 At Par	2135179.20	350000.00 Rs/Unit	2800000.00	
9	Installation, Testing & Commissioning of Video Management & recording Server with required accessories as per RDSO spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS9	8 Numbers	5337.95 At Par	42703.60	500.00 Rs/Unit	4000.00	
10	Supply, Installation, Testing & Commissioning of Video Management Software with License as per RDSO/SPN/TC/65/2021 Ver.6.0 or latest (Per camera Licence means Video Management (Viewing))	NS10	121 Numbers	891.18 At Par	107832.78	2850.00 Rs/Unit	344850.00	
11	Supply, Installation, Testing & Commissioning of Video Recording Software with License as per RDSO spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS11	121 Numbers	534.10 At Par	64626.10	2850.00 Rs/Unit	344850.00	
12	Supply of Server Hardware for Video Analytics and all other required accessories to make the system operational, as per RDSO spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS12	4 Numbers	266897.40 At Par	1067589.60	350000.00 Rs/Unit	1400000.00	
13	Installation, Testing & Commissioning of Server for Video Analytics with required accessories as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS13	4 Numbers	5337.95 At Par	21351.80	2000.00 Rs/Unit	8000.00	
14	Supply, Installation, Testing & Commissioning of Video Analytics Software with License as per RDSO Specification RDSO/SPN/TC/65/2019 Rev. 6.0 with latest	NS14	121 Numbers	8541.00 At Par	1033461.00	5750.00 Rs/Unit	695750.00	
15	Supply of Server Hardware for Face recognition and all other required accessories to make the system operational,as per Spec.	NS15	4 Numbers	266897.40 At Par	1067589.60	450000.00 Rs/Unit	1800000.00	

	No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest							
16	Installation, Testing & Commissioning of Server for Face recognition with required accessories as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS16	4 Numbers	5337.95 At Par	21351.80	2000.00 Rs/Unit	8000.00	
17	Supply, Installation, Testing & Commissioning of Face Recognition Software with License as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS17	32 Numbers	33266.80 At Par	1064537.60	45000.00 Rs/Unit	1440000.00	
18	Supply of full HD large format display 55" as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS18	8 Numbers	53789.00 At Par	430312.00	110000.00 Rs/Unit	880000.00	
19	Supply of PC work station for viewing cameras in multi screen mode and monitoring as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS19	8 Numbers	222365.36 At Par	1778922.88	220000.00 Rs/Unit	1760000.00	
20	Supply and installation of 05 KVA UPS at least 1 hour battery back up in full load condition complete with all accessories as per technical Specification Make: NUMERIC/ APC / MICROTEK or similar. The UPS should have SNMP port for remote monitoring, data logging facility with USB port to download and audio-visual alarm for load on bypass mode. This also includes supply of one battery rack and one set (for input and output) compatible MCBs complete with cover & fixing materials. Make: Havells, Anchor or similar. The SMF/VRLA battery should be of minimum 8000VAH capacity. Make:Exide/Amararaja or similar.	NS20	8 Numbers	100529.18 At Par	804233.44	150000.00 Rs/Unit	1200000.00	
21	Supply, Installation, Testing & Commissioning of 24 Port manageable Layer 3 Switch with 4 Nos of 10G SFP port and 24 Nos of GE port with all accessories as per Spec. No: RDSO/SPN/TC/83/2020 Ver.2.0 or latest	NS21	4 Numbers	138786.65 At Par	555146.60	85000.00 Rs/Unit	340000.00	
22	Supply, Installation, Testing & Commissioning of Core Switch as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS22	4 Numbers	117434.86 At Par	469739.44	75000.00 Rs/Unit	300000.00	
23	Supply, Installation, Testing & Commissioning of 24Port Layer 2 Switch as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS23	4 Numbers	34519.00 At Par	138076.00	28000.00 Rs/Unit	112000.00	
24	Supply, Installation, Testing & Commissioning of Field Switch 8POE port	NS24	71 Numbers	16724.96 At Par	1187472.16	16000.00 Rs/Unit	1136000.00	

	and 2 Nos of 1G Optical port as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest							
25	Supply, Installation, Testing & Commissioning of Aggregate Switch as per Spec. No: RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS25	8 Numbers	103200.33 At Par	825602.64	75000.00 Rs/Unit	600000.00	
26	Supply of single mode single fibre 10G SFP module compatible with Layer 3, Layer 2 and Aggregate switches to suit NS21, NS23 & NS25.	NS26	160 Numbers	5774.48 At Par	923916.80	2500.00 Rs/Unit	400000.00	
27	Supply of single mode single fibre 1G SFP module compatible with Field and Aggregate switches to suit NS24 & NS25.	NS27	419 Numbers	909.84 At Par	381222.96	2000.00 Rs/Unit	838000.00	
28	Installation, testing and commissioning of large format display monitor unit 55"	NS28	8 Numbers	854.89 At Par	6839.12	500.00 Rs/Unit	4000.00	
29	Installation, testing and commissioning of PC work station with all accessories	NS29	8 Numbers	3520.30 At Par	28162.40	1000.00 Rs/Unit	8000.00	
30	Installation, testing and commissioning of single mode single fibre 10G SFP module compatible with Layer 3, Layer 2 and Aggregate switches	NS30	160 Numbers	91.80 At Par	14688.00	50.00 Rs/Unit	8000.00	
31	Installation, testing and commissioning of single mode single fibre 1G SFP module compatible with Field and Aggregate switches	NS31	419 Numbers	45.67 At Par	19135.73	25.00 Rs/Unit	10475.00	
32	Supply to the Consignee store , Transportation to the site of Computer Table (1200 x 600x750) : 1 No. with block board & Sunmica top and Chair steel cushioned 2 Nos (Godrej make or similar) with all accessories	NS32	8 Set	13439.08 At Par	107512.64	25000.00 Rs/Unit	200000.00	
33	Supply, Installation, Testing and Commissioning of Storage System for 30 days(37TB) recording at station/RPF/GRP Thana/Post along with all accessories required for installation purposes	NS33	8 Numbers	200944.56 At Par	1607556.48	300000.00 Rs/Unit	2400000.00	
34	Supply of covered 19" (42U) Racks of size 2200mm x 600mm x 600mm (similar to Vero president / HCL / RITTAL Make) complete with all fittings including DC Fan (48V) - 2 Nos and AC power distribution panel (horizontal fitting) with power sockets and fuse protection (minimum 6 Nos of 230V 15A/5A combined) and other accessories. The body should be of high quality cold rolled steel. with wheel and caster arrangement, vented from door borders and rear doors for ventilation and reliable operation. All the	NS34	4 Numbers	25199.32 At Par	100797.28	26000.00 Rs/Unit	104000.00	

	accessories and fixing materials required for this installation are to be supplied by contractor within the same cost.							
35	Installation of 19" 42 U size floor mountable covered network racks with complete fixing accessories	NS35	4 Numbers	400.59 At Par	1602.36	100.00 Rs/Unit	400.00	
36	Supply and Installation of surface Wall mountable type 19 inch 6U network Rack with front glass door with lock and rack fixing multipoint AC Power trip & all accessories	NS36	71 Numbers	3628.00 At Par	257588.00	3500.00 Rs/Unit	248500.00	
37	Supply of STP cat 6 outdoor cable as per RDSO specification No. RDSO/SPN/TC/65/2021 Ver.6.0 or latest	NS37	10880 Metre	30.00 At Par	326400.00	42.00 Rs/Unit	456960.00	
38	Supply of 12 Fiber unarmoured single mode Optic fiber cable similar to finolex/AMP/Molex/Starlite makes	NS38	8400 Metre	16.76 At Par	140784.00	22.00 Rs/Unit	184800.00	
39	Supply of 3core 2.5sqmm power cable (Copper) conforming to IS:1554 part 1	NS39	8400 Metre	65.15 At Par	547260.00	110.00 Rs/Unit	924000.00	
40	Laying of UTP/OFC cables/power cables in 1" PVC conduit (ISI marked)/ case capping and clamping on wall or rooftops/PF shelters with suitable clamping and other accessories to be supplied by the contractor)	NS40	27680 Metre	4.22 At Par	116809.60	3.00 Rs/Unit	83040.00	
41	Supply and Fixing of PVC conduit pipe of 25mm dia conforming to IS: 9537 with suitable couplers and bends as instructed by Railway representative at site	NS41	23500 Metre	33.81 At Par	794535.00	28.00 Rs/Unit	658000.00	
42	Supply and fixing of various size of multi coloured alpha numeric PVC ferrules for cable ID marking / labeling whether resistance extra heavy duty, cable ties utilised during cable laying work	NS42	4 Lumpsum	25393.50 At Par	101574.00	20000.00 Rs/Unit	80000.00	
43	Cutting of trench across/on the platform for a depth of 10cm with marble cutting machine and refilling with plaster.	NS43	4500 Metre	250.00 At Par	1125000.00	200.00 Rs/Unit	900000.00	
44	Supply and Fixing of rack mountable 12 F LIU including all accessories with splicing as instructed by the Railway representative at the site (pigtales and other miscellaneous material required for the work shall be supplied by the contractor)	NS44	83 Numbers	6300.00 At Par	522900.00	6000.00 Rs/Unit	498000.00	
45	Supply and laying of permanently solid lubricated HDPE pipes (33 mm inner Dia. 40mm outer dia) as per TEC GR no.G/CDS-08/02 Nov 2004 or latest	NS45	1400 Metre	64.50 At Par	90300.00	60.00 Rs/Unit	84000.00	
46		NS46	1400 Metre	9.00 At Par	12600.00	5.00 Rs/Unit	7000.00	

	Blowing of OFC in permanently solid lubricated HDPE Telecom pipe (33mm inner dia).							
47	Supply and installation of optical joint closure for Optical fiber cable as per RDSO Specification.	NS47	20 Numbers	150.00 At Par	3000.00	150.00 Rs/Unit	3000.00	
48	Supply and erection of G.I pipe (50MM dia -3.65mm thick) for laying of cable to the PF shelter/Building wall/FOB pillar from ground level and concreting at base level and extending by suitable dia HDPE pipe/ PVC pipe on either side as directed by Railway Engineer. All the clamping & fixing materials are to be supplied by the contractor.	NS48	210 Metre	525.15 At Par	110281.50	250.00 Rs/Unit	52500.00	
49	Supply and erection of 15 feet GI pipe of 4" dia of medium quality ISI No 1230 (part 1) 1990. Having iron base plate 10mm thick 30cm x 30 cm weld at the bottom of the pipe with 4 supports of iron bars of size 10mm dia. The 3 feet pipe shall be burried in the ground and 12 feet shall be above the ground. The work includes digging of pit on platform, laying of cable, erection of pole, filling the pit with 1:3:4 cement, concrete and sand. Final plastering should be done on the surface. The iron bracket on the top of the pole shall be provided for the fixing of CCTV camera and junction box/6U outdoor cabinate etc. (Necessary fixing and other materials required for fixing should be brone by the contractor)	NS49	32 Numbers	3192.12 At Par	102147.84	2000.00 Rs/Unit	64000.00	
50	Supply of 6U Outdoor cabinate enclosure IP66 complied pole mount similar to Rackom 6U-IP66 or similar	NS50	32 Numbers	10030.00 At Par	320960.00	8500.00 Rs/Unit	272000.00	
51	supply of 3 Mtrs length SC SC/SC-LC/LC-LC/FC-SC/FC-FC (as per Site requirement) connectors OFC patch chord	NS51	579 Numbers	1693.00 At Par	980247.00	900.00 Rs/Unit	521100.00	
52	Supply of CAT 6 UTP patch cord of 3 meter length	NS52	59 Numbers	120.00 At Par	7080.00	100.00 Rs/Unit	5900.00	
53	Supply and fixing of wall mountable 24F nos FMS conforming to RDSO/SPN/T C-37/2000 (REV-3) amdt -1 or latest	NS53	9 Numbers	12000.00 At Par	108000.00	8500.00 Rs/Unit	76500.00	
54	Supply and installation of Media converter fiber to ethernet as per RDSO as per spec.No. RDSO/SPN/TC/65/2013 Rev.5.0	NS54	8 Pair	5500.00 At Par	44000.00	5500.00 Rs/Unit	44000.00	
55	Road crossing/ Track crossing through horizontal boring method at a depth of 1mtr and inserting 120mm outer dia and 103.5mm inner	NS55	600 Metre	645.19 At Par	387114.00	500.00 Rs/Unit	300000.00	

	dia DWC pipe specification No. IS 14930 (part II) :2001 or latest and pushing cables in DWC pipe through it. (DWC pipe 120mm outer dia and 103.5mm inner dia with couplers shall be supplied by the contractor)							
56	Supply and installation of wall mountable power distribution panel with 8nos x16Amp MCB's mounted and also with one earth leakage circuit breaker arrangement fitted.	NS56	4 Numbers	3800.00 At Par	15200.00	3000.00 Rs/Unit	12000.00	
57	Supply and provision of multipin power socket with switch 15A/5A(6Nos) wired with 2.5 Sq.mm copper multistrand wire.	NS57	8 Numbers	1800.00 At Par	14400.00	1500.00 Rs/Unit	12000.00	
58	Supply of Surge protection devices of class B(10/350μ Sec) & class C (8/20μ Sec) type metal encapsulated spark gap for fire safe and fire proof operation based single phase coordinated. It should have Mechanical failure indicator on L-N & N-E, plugable device as per IEC 61643 test standard	NS58	4 Numbers	11407.60 At Par	45630.40	12000.00 Rs/Unit	48000.00	
59	Installation of Surge protection devices of class B(10/350μ Sec) & class C (8/20μ Sec). All the accessories required for the installation are to be supplied by the contractor within the same cost	NS59	4 Numbers	181.30 At Par	725.20	100.00 Rs/Unit	400.00	
60	Training - RPF (3 Persons)	NS60	4 Lumpsum	200.00 At Par	800.00	200.00 Rs/Unit	800.00	
61	Training - S&T (3 Persons)	NS61	4 Lumpsum	200.00 At Par	800.00	200.00 Rs/Unit	800.00	
62	Preparation of drawing mentioning the location of cameras wiring diagrams of UTP, power cable, OFC cable etc., OTDR reports of OFC cable earth resistance test reports. Technical details of servers, switches, work stations, media converters, storages	NS62	4 Station	25000.00 At Par	100000.00	20000.00 Rs/Unit	80000.00	
63	Supply of 24 F armoured OFC cable as per RDSO Specification.	NS63	1000 Metre	40.00 At Par	40000.00	60.00 Rs/Unit	60000.00	
64	Supply of 3core 2.5 Sqmm multi strand copper conductor PVC insulated armoured power cable	NS64	1000 Metre	40.00 At Par	40000.00	110.00 Rs/Unit	110000.00	
65	Supply and installation of optical joint closure for Optical fiber cable as per RDSO specification	NS65	2 Numbers	10884.00 At Par	21768.00	10000.00 Rs/Unit	20000.00	
66	Supply of Optical fibre Splicing machine Dual monitor position with automatic image orientation, Automatic arc calibration with clever, adaptor, sheath clamp etc similar to the make of splice master 60S or better.	NS66	1 Numbers	135000.00 At Par	135000.00	140000.00 Rs/Unit	140000.00	
67		NS67	1 Numbers	72600.00 At Par	72600.00	75000.00 Rs/Unit	75000.00	

	Supply of optical time domain reflectometer (OTDR) 7.0 Inch Capacitive Touch Screen (Daylight Readable) High Dynamic Range from 32-45Db, Rugged Design, Light Weight Built-in Light Source similar to the make of UW 6000A or better							
68	Supply of Optical power meter wave length 800 - 1600nm, range 45 to + 10 dBm similar to the make of EXFO or better.	NS68	1 Numbers	48852.00 At Par	48852.00	50000.00 Rs/Unit	50000.00	
69	Supply of fiber optical light source with wave length of 850/1300nm laser output for multi-mode fiber measurements similar to FOLS-106 or better	NS69	1 Numbers	17700.00 At Par	17700.00	15000.00 Rs/Unit	15000.00	
<b>Schedule Totals</b>							<b>29656525.00</b>	
<b>Schedule AMC-Annual Maintenance Contract (Item Directory - Not Applicable)</b>							<b>0.20</b>	
1	AMC for entire VSS of ALU station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the first year	ALU1	1 Per station per year	0.01 At Par	0.01	50000.00 Rs/Unit	50000.00	
2	AMC for entire VSS of ALU station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the second year	ALU2	1 Per station per year	0.01 At Par	0.01	50000.00 Rs/Unit	50000.00	
3	AMC for entire VSS of ALU station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the third year	ALU3	1 Per station per year	0.01 At Par	0.01	75000.00 Rs/Unit	75000.00	
4	AMC for entire VSS of ALU station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fourth year	ALU4	1 Per station per year	0.01 At Par	0.01	75000.00 Rs/Unit	75000.00	
5	AMC for entire VSS of ALU station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fifth year	ALU5	1 Per station per year	0.01 At Par	0.01	100000.00 Rs/Unit	100000.00	
6	AMC for entire VSS of VRI station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the first year	VRI1	1 Per station per year	0.01 At Par	0.01	50000.00 Rs/Unit	50000.00	
7		VRI2	1	0.01 At Par	0.01	50000.00 Rs/Unit	50000.00	

	AMC for entire VSS of VRI station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the second year		Per station per year					
8	AMC for entire VSS of VRI station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the third year	VRI3	1 Per station per year	0.01 At Par		0.01	75000.00 Rs/Unit	75000.00
9	AMC for entire VSS of VRI station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fourth year	VRI4	1 Per station per year	0.01 At Par		0.01	75000.00 Rs/Unit	75000.00
10	AMC for entire VSS of VRI station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fifth year	VRI5	1 Per station per year	0.01 At Par		0.01	100000.00 Rs/Unit	100000.00
11	AMC for entire VSS of NGT station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the first year	NGT1	1 Per station per year	0.01 At Par		0.01	50000.00 Rs/Unit	50000.00
12	AMC for entire VSS of NGT station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the second year	NGT2	1 Per station per year	0.01 At Par		0.01	50000.00 Rs/Unit	50000.00
13	AMC for entire VSS of NGT station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the third year	NGT3	1 Per station per year	0.01 At Par		0.01	75000.00 Rs/Unit	75000.00
14	AMC for entire VSS of NGT station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fourth year	NGT4	1 Per station per year	0.01 At Par		0.01	75000.00 Rs/Unit	75000.00
15	AMC for entire VSS of NGT station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fifth year	NGT5	1 Per station per year	0.01 At Par		0.01	100000.00 Rs/Unit	100000.00
16		PDY1	1	0.01 At Par		0.01	50000.00 Rs/Unit	50000.00

	AMC for entire VSS of PDY station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the first year		Per station per year					
17	AMC for entire VSS of PDY station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the second year	PDY2	1 Per station per year	0.01 At Par		0.01	50000.00 Rs/Unit	50000.00
18	AMC for entire VSS of PDY station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the third year	PDY3	1 Per station per year	0.01 At Par		0.01	75000.00 Rs/Unit	75000.00
19	AMC for entire VSS of PDY station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fourth year	PDY4	1 Per station per year	0.01 At Par		0.01	75000.00 Rs/Unit	75000.00
20	AMC for entire VSS of PDY station including server hardware, camera, external storage, switches and all the associated peripherals including UPS, Power/Optical wiring, SPDs and Earthing for the fifth year	PDY5	1 Per station per year	0.01 At Par		0.01	100000.00 Rs/Unit	100000.00
<b>Schedule Totals</b>							<b>1400000.00</b>	
<b>Total Value</b>							<b>25230281.28</b>	<b>31102695.80</b>
<b>Rebate on Total Value (%)</b>							<b>0.00</b>	
<b>Net Bid Value</b>							<b>31102695.80</b>	

**Item Breakup**

Schedule	A-SOR ITEM						
Item - 1	SOR						
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount	
1	011010	Excavation of cable trench in all kinds of soil except hard rocky areas including clearing of roots of trees, rocks, bushes etc. to a depth of 1.0 Mtrs and to a width of 0.3 Mtrs. Laying of cables is not included in this schedule.	Metre	400	34.65	13860.00	
2	011110	Laying of signaling/power/telecommunication cables as per cable plan in cable trenches, masonry ducts, RCC Pipes, DWC pipes, GI Pipes etc.(Supply of cables is not included in this schedule).	Metre	400	9.83	3932.00	
3	011150	Refilling of cable trench 1m depth by 0.3m width throughout, with earth after laying of cables, and consolidating the trench by ramming and leveling.	Metre	400	8.33	3332.00	
4	011770	Provision of earth electrodes as per drawing No.SG/SN/02/13 and earthing of metallic sheath and armour of all cables in all apparatus cases, relay room, equipment room, SM's room for block and control, and earthing of all equipments in apparatus cases, power room, relay rack, cable termination rack, control panel, signals, lever frames with MS flat 35mm X 6mm/19c cable (MS flat for closure by areas and MS flat/19c cable combination for farther areas) as per the instructions of Railway representative at	Numbers	8	1799.00	14392.00	

	site. The work includes painting of earth resistance value on the earth pit. Supply of 19C cable is not covered in the scope of this schedule.[MS flat for earthing 35mm X 6mm, cement, GI earth electrodes, common salt, charcoal, country bricks, river sand, soldering materials and all other miscellaneous materials required for the work shall be supplied by the Contractor].			
			<b>Total</b>	<b>35516.00</b>